USAID BULGARIA HEALTH REFORM PROJECT

Contract № PCE – I – 00 – 00 – 00014 – 00

Task Order 810

FINAL REPORT

Prepared for:
USAID
Bulgaria

Prepared by:
Ibrahim Shehata

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INTRODUCTION

The United States Agency for International development (USAID) awarded the two-year contract for the Bulgaria Health Reform Project (BHRP) to BearingPoint on April 2003. This report covers the entire project period, including the seven months no-cost extension, through November 2005.

Summarizing the cumulative work of this period is a challenging task. This document will not provide a comprehensive list of every BHP activity, but will focus on significant contributions and achievements of the project as well as present a list of key results addressing of the tasks outlined in the project's scope of work.

It should be noted that achievements in improving health systems performance rely on a complex interlay of factors, some of which are under the project's control and others that are influenced by the broader social, political, and economic environment in Bulgaria. The design and implementation of health reform is a long-term process, and impacts of these changes on healthcare utilization are not always immediately evident.

BACKGROUND

Health Reforms in Bulgaria started in 1998 with the enacting of the Health Insurance Act, which regulated the introduction of the obligatory and voluntary health insurance. The passing of the act led to the establishment of the National Health Insurance Fund (NHIF), which became operational in mid 2000.

In the aftermath of forming the NHIF multiple layers of financing were created that often promoted conflicting incentives for providers and led to variations in treatment depending on the source of funds. For example, hospitals continued to receive state budget financing in addition to direct out-of-pocket payments and the newly introduced clinical care pathways (CCPs) reimbursements by the. This has led to confusion and misunderstanding by the beneficiaries as well as the providers as to which services are covered by the NHIF and which are the responsibility of the patient to pay for directly. Another problem was the transition from a system that offered all health services for free to one that is more resource-conscious and is more concerned with utilizing the limited resources more appropriately.

Providers have responded to the NHIF contracts positively and the additional revenue has contributed to the overall improvement and quality of services. This has focused practitioners on clinical quality and volume of services. 40% of the additional revenue has been applied (as a requirement), to increase hospital salaries using a variety of internal distribution formulas. One emerging concern is that providers are making investment decisions based on delivering clinical pathway procedures without the process of fully determining health need or regional analysis. At this stage providers seem intent

on developing their facilities to target the delivery of clinical pathway based services so that additional revenue can be obtained.
The dynamics of the health system makes the design of a long-term sector strategy development a difficult task to undertake under normal circumstances. This is even more so when the health system is trying to adjust to the introduction of a new entity, which is partly responsible for financing services and is considered to be in a state of evolution. The analysis of the current status of the health sector in Bulgaria has proven the need for changes both in health system organization and financing.

While the focus of the government in the first 3 years of the NHIF's life was on organizing the outpatient care sector, the physical and financial state of the inpatient care sector has continued to deteriorate. As a result the inpatient care sector has lagged behind in reforms. This led to a health care system that is fragmented and seemingly unable to change in order to meet the changing health needs of the population it serves.

The present system is characterized by an oversupply of capital stock and maldistribution of the medical workforce in terms of geographical location and skill sets. The development of the health information system was attempting to provide higher quality information by addressing data integrity issues and linking utilization information (services and pharmacy) with the current data sets. It is concerning that investment decisions are being made in the absence of adequate information. There is a current belief that health need is reflected by demand for services. However the demand for services is clearly influenced by the skills mix of medical staff and available technology which has not been analyzed in terms of addressing morbidity / mortality, the role and scope of regional providers and the volume of services that the NHIF, State funding, and the community can afford to pay.

In general, the revised and proposed legislative changes show encouraging signs of commitment of the MOH and government to the need for strong legislation in support of the health care reform process. It will be critical to ensure adequate flexibility to embrace all the components of the proposed reforms especially regarding workforce reform, ownership issues and to ensure appropriate incentives and disincentives prevail to facilitate the desired change management. Of particular importance is removing the current circumstances that effectively 'punish' providers that seek to implement key efficiency and effectiveness initiatives that will currently reduced their level of income.

The strategy to achieve rationalization of the hospital system is complicated by two streams of funding. Municipal Hospitals currently receive funding through two main streams that include direct funding from the State through the Municipal Government and more recently through contracts with the NHIF to deliver a set of services described as one of 82 clinical pathways. The introduction of clinical pathway based contracts has significantly increased the revenue of many hospitals. The majority of the funds have so far been applied to increase salaries, which is understandable considering the relative low level of remuneration that has emerged over the last ten years. Institutions are employing

a variety of strategies to apply the additional funds to salaries that may lead to down stream industrial problems if equity issues arise.

The NHIF is currently committed to a substantial investment strategy related to the introduction of Diagnostic Related Groupings as the basis of their long term funding mechanism. In the meanwhile it plans to expand the current list of 82 clinical care pathways as a means of contracting for services. In future these will be used as a tool for quality assurance purposes.

PURPOSE AND SCOPE

The main purpose of the Project is to assist the Bulgarian government with the transition of its health system particularly in the areas that will ensure strengthening of the local health authorities, financial transparency and viability of the health sector and its long-term sustainability. The Project's objectives are to:

- Enhance health services financing particularly in the hospital sector where state financing is still greatly dependent on historical budgets rather than hospital performance.
- Assist the MOH with improving efficiency and effectiveness of the inpatient care sector, observing the requirements of accessibility, timeliness, sufficiency and quality.
- Institutionalize National Health Accounts (NHA) in order to provide a transparent picture of the flow of funds within the health sector and better allocation of health resources.
- Assist the Parliamentary Health Commission in enhancing existing laws that impact the financing and provision of health care services and further the development of the compulsory and voluntary insurance schemes as well as strengthen health care provider institutions.

SIGNIFICANT CONTRIBUTIONS AND ACHIEVEMENTS

I. Restructuring Inpatient Care

Hospitals in Bulgaria were created and build at a time when the population was growing and their health care needs were fully covered by the state. Many things have changed in the past decade that had direct impact on health care provision in general and hospital care in particular. The population growth has been in steady decline, the number of the elderly has continued to grow, the state can no longer guarantee free hospital care for all its citizens, and the hospitals have grown old and their equipment outdated. With inpatient care continuing to absorb a significant portion of state and municipal government allocations to the health sector and the projected accelerated pace for using

the National Health Insurance Fund (NHIF) as the main payer for hospitals, it is inevitable that inpatient care service are among the top priorities for health sector reform.

The Ministry of Health (MOH) has developed a hospital reform strategy in 2002 that was later adopted by the Council of Minister's as a government policy. The policy calls for restructuring inpatient care by consolidating the oversupply of inefficient hospitals and adapting some facilities into other types of health care establishments in order to best meet the needs of the communities in which they serve. As a first step to implement that strategy, the government, state and municipal, has to understand what are those needs and then compare them to the actual services provided. The restructuring can only start following the analysis of available health care facilities in each region and analyzing levels of utilization.

Due to the decline in population, the proximity between the hospitals and the almost nonexistent investment capabilities of their principals, the need to consolidate hospital services has become more obvious. This might mean establishing a regional holding entity whose purpose would be to both meet the demands of various patient groups and improve hospital efficiency. In order to set up the regional holding entity, a decision of the local municipal council will be required supported by the expert opinion of the Regional Health Center, the NHIF and the Physicians' Union in the region as these are the entities that are the most knowledgeable about the health issues characteristic of the area.

At the present, there are three different levels at which in-patient care is organized in Bulgaria depending on the location and scope of population receiving services:

- *Local*, servicing the population of one or several adjacent municipalities;
- *Regional*, servicing the population of one or several regions;
- *National*, serving the whole country with diagnostic and therapeutic activities that are unique and specialized.

Despite major effort to attain reduction in the number of hospital beds between 1997-2001, the total number of hospitals in Bulgaria in 2000 was 299, with a total of 60,552 beds, of which 127 are multi-profile hospitals, 84 specialized, 50 outpatient clinics, 18 private hospitals and 16 hospitals belonging to other institutions. Of the existing multi-profile hospitals, 32 are regional hospitals accounting for 35% of the total hospital beds and 102 are district hospitals (27% of the available hospital beds)[1]. The private sector continues to play a small role in the provision of inpatient care services in Bulgaria.

What makes hospitals unique is the recognition of a fundamental issue that is central to any successful strategy. That is, no hospital will solidify its future success simply through cost containment. Cost competitiveness will only occur in a strategic context that

[1] Strategy for Restructuring Hospital Care – 2002-2006, Ministry of Health.

considers clinical, demographic, cultural, and systems/process issues, among others. In this context, the hospitals have a potential to nurture a culture that will achieve substantial and sustainable benefits, not only in terms of cost and productivity, but also with respect to quality, service and employee and physician moral. The goal of the BHRP assessments was to evaluate the hospitals' current situation by developing a clear understanding of the primary factors driving their performance.

A variety of benchmarks can account for the hospitals' performance – i.e., non-value added activities, redundancy, ineffective systems, levels of service, etc. The MOH leadership recognizes that providing quality inpatient care should no longer be restricted by the local boundaries of the municipalities in which hospitals are located. It is important to evaluate the hospital services provided within a region in aggregate in order to achieve optimum efficiency. By viewing these hospitals as part of a delivery network, as opposed to separate hospitals, it will be possible to better coordinate the services offered to meet the specific needs of the communities they serve and eliminate the existing inefficiencies. The hospital reform effort should simultaneously achieve more efficient use of resources while improving service quality and enabling better clinical outcomes. As such, the following objectives were outlined for the inpatient care assessments in Gabrovo, Lovech, Stara Zagora and Razgrad:

- Gather baseline information on how the hospitals operate, what services they provide, and how they provide these services.
- Compile community demographic and health characteristics data.
- Understand the problems hospitals face and the redundancies in service delivery.
- Provide recommendations on how to enhance clinical outcomes and increase efficiency by eliminating redundancies and improving resource utilization.

To achieve these objectives the assessment team had to:

- Compile community profile information including population by age and demographic characteristics of each municipality.
- Understand health services needs by assessing morbidity, mortality and health status of the population in each municipality.
- Determine any unmet community health needs and prioritize them if possible.
- Examine standard financial reports such as operating costs, capital expenditures, profit and loss statement, balance sheet, cash flow, etc.
- Understand the main problems the hospitals are facing; examine the nature of their relationship with MOH, NHIF and other local authorities.
- Assess alternative sources of patient care and the impact on provision and utilization.
- Recommend practical solutions for hospitals' restructuring.

Many active legal acts regulate the legal framework of the healthcare sector. Healthcare has been undergoing serious changes during the last couple of years and a considerable part of the legal texts, too, were and are being changed, in order to more adequately reflect the new functions and responsibilities of the different institutions involved. Our meetings with mayors, hospital managers and medical staff, as well as our work on the present report, led us to the following conclusions about the need for changes to be introduced in the directions listed below:

1) Reduction of the period for update of the National Health Map. It may be changed once in five years, whereas regional health maps may be changed when necessary. Due to the dynamically changing conditions for the development of the inpatient healthcare establishments it is necessary to reduce the deadlines for update of the National and regional health maps. This also necessitates the consideration of National standards for defining of the medical and statistic indicators and their parameters for the healthcare establishments in the country. The standards should be in line with the specifics of the Bulgarian healthcare network, as well as with the directions for the development of the healthcare system in other Central and Eastern European countries.
2) The implementation of Ordinance No1 of the Council of Ministers dated 2000 for the accreditation of the healthcare establishments made an attempt to evaluate the healthcare establishments, forced to exist as commercial subjects in the conditions of centralized-administrative type of management. Restrictions are imposed on the number of beds, constituting one department, without taking into account the specifics of the different regions in the country – geographic, infrastructure peculiarities and the demographic characteristics of the population. There are restrictions on the structure and number of physicians with licensed specialty. This raises many issues for hospitals, where only one unit is inefficient and/or needs to be restructured. Following the law, the entire hospital would have to be closed just because it would not meet the criteria for a hospital once the inefficient units were restructured or eliminated. From a legal perspective, it is unclear how the process of restructuring/elimination of the inefficient unit should be done. For example, they could be privatized, rented sold or traded. All these considerations contribute to the unfair situation of small municipal hospitals compared to regional ones.

In order to optimize efficiency while better serving their patients, hospitals will have to be consolidated while expanding both outpatient services and post acute services by converting some of the existing traditional inpatient facilities into more efficient day surgery or ambulatory care centers or nursing care center depending on the actual health needs of the population. This should be accompanied by introducing a sophisticated transport service to move urgent and emergency patients among the various towns and facilities at fraction of the cost of maintaining fully staffed hospital. Eliminating redundancies and expanding non-hospital based services will eliminate unnecessary costs. In addition, the hospitals can gain economies of scale by combining their purchases

of drugs and supplies, which will serve to improve the cost structure of the inpatient services currently provided. The restructuring of the hospital operations should revolve around four major areas:

- Inpatient care
- Centralized production centers
- General support services
- General administrative services

The restructuring of inpatient care involves a two-part process that will completely restore the service delivery leading to higher customer satisfaction and significant cost reduction. The primary principles employed in the redesign include:

- Re-aggregating inpatients into units of more stable and highly concentrated sources of demand
- Moving resources to the point of service (decentralization)
- Cross training functions among many of the department staff
- Streamlining high volume processes to provide greater efficiencies
- Reorganizing services and surrounding departmental management

Centralized production centers include Emergency Services and highly capitalized ancillaries (e.g., Radiology, Laboratory, Pharmacy). Production centers deliver services to patients in relatively short time frames before the patients resume their stay on the care unit or leave the facility as an outpatient.

General support services that support patient care and the general functioning of the hospital and clinics include: dietary services, engineering and plant services, laundry and linen, transport and communications among others. The focus of change for these services is to decentralize as many services and functions as possible to the point of customer service. The staff and management that remain centralized can then be consolidated and integrated to provide greater cost efficiency and customer responsiveness.

Under administrative services the focus of change in these areas is to downsize the operation while continuing to provide essential services. This is done through an evaluation of consolidation opportunities among departments, the potential outsourcing of some, reduction in low value added task and services, and streamlining the management structure.

Our recommendations focus on the need to have a strong leadership in this pilot reform and on the need to work closely with the regional working groups for the next steps of this pilot. Efforts will have to be put on the communication strategy towards the region, especially when it relates to the management of human resources when restructuring

hospitals. Being candidate to the pilot test on municipal hospital restructuring was not mandatory and gives a specific responsibility to the participating regions. Being part of the pilot on hospital restructuring is certainly a major opportunity. Two years were spent to build the methodology of carrying out the pilot test. It seemed obvious that the Ministry of Health had decided that it was now time for action, and it should be made clear to local stakeholders.

As in most restructuring plans the principal fears, and resistance, are due to jobs losses, it is of great importance that the ministry of health brings a clear view of the whole process, including of the transfer of jobs that should occur and of the strategies for retraining health professionals to get more adapted to other tasks they could carry out in social and medico-social care. As well as for the structures themselves, cooperation and sharing activities must be based on clear contracts and well-defined incentive measures. Communication and transparency on these issues are essential.

The participants should be aware of the potential consequences of their passive involvement in the project, including the loss of financial resources available today. It should also be made clear that the system as it works today is not sustainable in the long-term and that the government will be obliged to undertake administrative measures to lower the number of exceeding beds anyway. This strong political message should be brought to members of the national working group but also clearly asserted in each experimental region in front of the major leaders of the working groups.

II. Consolidate Inpatient Care Financing

In Bulgaria, like many other countries throughout the world, health care funds have been distributed according to the hospitals' historical budgets or rather the inputs of the hospital. This means that hospitals are financed based on their historical numbers of discharges, personnel, buildings, beds, their location, and other inputs. This is a poor way of financing hospitals, as it does not factor in that costs and resources vary based on the types of patients treated and the outcomes of these patients within hospitals. Reducing inefficiency and waste in the hospital sector can come by allocating hospital budgets in a fair, equitable, and objective manner which relies on measuring what the hospital produces outputs). This is an important step and one that many governments have taken by changing their hospital financing systems to output based systems using diagnosis as the basis for determining the volume and type of cases treated and then financing these cases accordingly.

Moving towards output based financing, requires measuring what the hospital produces, most often a case as defined by its diagnosis codes. Bulgarian officials took a limited first step towards output based financing when they introduced contracting between the NHIF and hospitals using the (Clinical Care Pathways) CCP method in 2001. This was a good first step, but much work remains to be done both with CCPs and with introducing other concepts, such as the internationally accepted classification system of Diagnosis Related Groups (DRGs), which can be used for classifying similar types of patients and

for financing these patients. The good news is that DRGs and CCPs can work together because the DRGs are most often used to convey the price of the case, while the CCPs help establish the guideline or most appropriate protocol in the treatment of that case.

An adverse effect of the use of Clinical Care Pathways is that they provide a strong incentive for all hospitals to produce more acute care (better reimbursed), sometimes disconnected from the real needs of the patients on a territorial level. Before the formal introduction of Diagnosis Related Groups, the use of new incentives to counterbalance this adverse incentive should be thought over by the national working group. Some major problems and remarks in regard to the methodology used for determining the cost of CCPs is that methodology describes in general terms, and differentiates, the basic elements of expenditures, the purpose being to get an approximate cost of treatment per discharge. The specific remarks on the different elements on the basis of which expenditures are defined are the following:

1) The direct expenditures for drugs, consumables, tests, operating procedures, anesthesia, expenditures for blood and bio-products are defined on the basis of "the expert evaluation of consultants". This approach contains a serious risk of mistakes and subjectivism in defining the specific level and structure of expenditures, by not taking into account the specifics of separate cases and the peculiarities of highly specialized healthcare establishments like the teaching and regional hospitals, which prove to be the yet another, highly specialized step in the treatment of cases that have not been diagnosed and treated accordingly in the respective municipal hospitals. For example, there are no differentiated prices for cases with accompanying diseases, which make the treatment process more expensive. A CCP for a death case is not covered, neither are cases of acute brain blood circulation disorders and acute myocardial infarction, which are treated at the ICU. Most of the CCPs do not include many of the expensive and time-consuming laboratory and physical tests with high degree of repetition, which form a big part of the price.

   In order to achieve correct and precise determination of direct expenditures, which have the biggest share, it is necessary to apply a direct calculation approach for calculating the cost, based on strictly defined mathematical and statistic analysis and formulae, by taking into account the specific diagnosis of each clinical case, the dosage and quantity of drugs, the number of tests and the actual market prices of medical products.

2) The other, indirect expenditures, in accordance with the methodology classification, are determined on the basis of information about those expenditures provided by the hospitals and calculated as average values per bed day. These expenditures include expenditures for labor, fuel, food, energy etc. The problems and inaccuracies associated with this approach are the following:

   2.1 The approach of mechanical extrapolation of the amount of those expenditures from the hospital reports to the cost of CCPs actually recreates

the deficit that was existent in hospital financing. Hospital reports do not contain data about a big group of incurred but uncovered expenditures that are accumulated as debts and are usually covered by additional subsidies at the end of the year. They also do not contain the expenditures for some expensive medical tests, drugs, food etc., which are usually paid in cash by patients.

2.2 Using the general expenditures of hospitals as a basis for determining the average cost per discharge automatically averages the expenditures for all discharges thus not taking into account the fact that patients treated under CCPs do not exceed 30-35% of the number of all discharges and the treatment of that group of patients is nearly twice as expensive. Apart from that, the reported data from previous years are mechanically applied to CCPs that are not yet developed and will be applied in the future.

2.3 The so-called "other expenditures" do not include certain expenditures incurred by the administrative departments of hospitals such as: central sterilizer and laundry, incinerators, transport activities, technical repairs unit, hospital pharmacy. Neither are reported the general hospital expenditures such as service and maintenance, telecommunications services, use of external consultants, business trips expenditures, linen, clothes, security, insurance, office supplies, administrative services and information unit (IT). All that leads to underestimating the amount of indirect expenditures and, hence, the prices of CCPs.

3) The methodology does not provide any clear rules, criteria and algorithm for determining the direct and indirect expenditures for labor. The expenditures for the staff are included in the other expenditures percentage. This approach does not account for the overall level and structure of the expenditures for the staff, including basic salaries, additional remuneration for additional work, duties and on-call, night labor, paid leave etc, and the respective social and health insurance in accordance with the active legislature.

The specifics of the different healthcare establishments, which reflects negatively mainly on University hospitals, where there are many specialized clinics and departments in which a broader range of physicians with different specialties work, as well as people with scientific degrees. The objective approach to the determination of the expenditures for the staff requires the application of the calculation principle based on metering the hours of labor and using specific price lists including all the elements of the basic and additional remuneration and the social and health insurance, differentiated by specialties and by type of staff.

4) The prices of CCPs do not include depreciation expenditures, and that deprives providers of the possibility to accumulate financial resources for renovation, replacement and repair of the basic medical equipment. In this connection, it is necessary to discuss the feasibility of the possibility for hospitals to sub-contract between themselves as far as the equipment is concerned. If a hospital does not

have at its disposal own specialized equipment, and the given activity is not one of its routines, then the quality of the provided care can be doubted.

The comparative analysis carried out by the healthcare establishments of several of the main CCPs, costed on the basis of the NHIF methodology shows that, because of the shortcomings of that methodology, the share of the CCP cost that the NHIF covers amounts to around 40-60% of the actual amount of expenditures incurred by providers.

At this moment the NHIF is not financing certain general system services that are provided at the university hospitals and the regional multi-profile and specialized hospitals. The activities of a big group of specialized university hospitals and national centers, such as the neurology and psychiatry hospitals, pediatric hospitals, infectious diseases hospital, oncology hospital, pediatric hematology, orthopedics – a total of 13 healthcare establishments, and also specialized pulmonary hospitals – 8 and specialized rehabilitation hospitals – 13 or a total of 34 healthcare establishments. Because of the specialized activity of those establishments, including treatment of rare or complicated diseases, only 2 or 3 CCPs have been developed for them so far, and the revenues from those CCPs cover not more than 20% of the expenditures of those hospitals.

Using DRGs as a method to organize inpatient clinical activity is a first step in understanding the health care services being provided as well as the quality of those services by comparing length of stay across hospitals, departments, and also physicians. These comparisons can help in a number of ways. Even if this is all that is done with the clinical data and the DRGs, it will be useful. If decision-makers and hospitals decide to move towards DRG-based financing in the future, then they will not lose time in the fundamental activities related to developing DRG financing, as those would have been done already (i.e., coding training, data collection, review of DRG data in reports, etc.). Hospital activity data organized into DRGs allows everyone to have a clear picture of the type and volume of clinical activity in Bulgarian hospitals. Using diagnosis to define the type of patient (or case) is thought to be one of the most useful categorizations used by physicians around the world. Being able to categorize patients according to similar diagnosis would allow decision-makers to divide up the "limited healthcare funds" available in a more equitable way while taking into account the health conditions of the population.

Example of DRGs

MDC (Medical Diagnostic Category)
Diseases and disorders of the respiratory system

DRG 75 Major chest procedures
DRG 78 Pulmonary embolism
DRG 81 Respiratory infections and inflammations Age 0-17
DRG 82 **Respiratory neoplasm**

If tariffs are assigned to these DRG groups over time, then we can see how it would make sense for there to be a different price for different types of clinical services provided in a hospital. For example, no one would disagree that a normal delivery would be less expensive than a Cesarean section. There are clearly more costs involved in the C-section case, and

those costs should be covered. In simple terms, this is the logic behind using DRGs for financing.

First, we must be able to count the different types of cases that are treated in Bulgarian hospitals and second, we should work to identify the resource consumption of those cases. This way, we will have a scale or a list of the relative resource consumption of all the different types of cases. Having the volume of cases and the types of cases (often called the case-mix of the hospital), we can begin creating hospital budgets in a fair and equitable manner. While some may will not like the idea of transparency, there is really no way to avoid it, as the entrance into the European Union and acquisition of International Monetary Funds, and the ability to attract foreign investors is fundamentally based on some level of objectivity and transparency in the public sector. Moreover, decreasing fraud, abuse, and corruption in the hospital sector will enhance patient care, satisfaction, and quality over time.

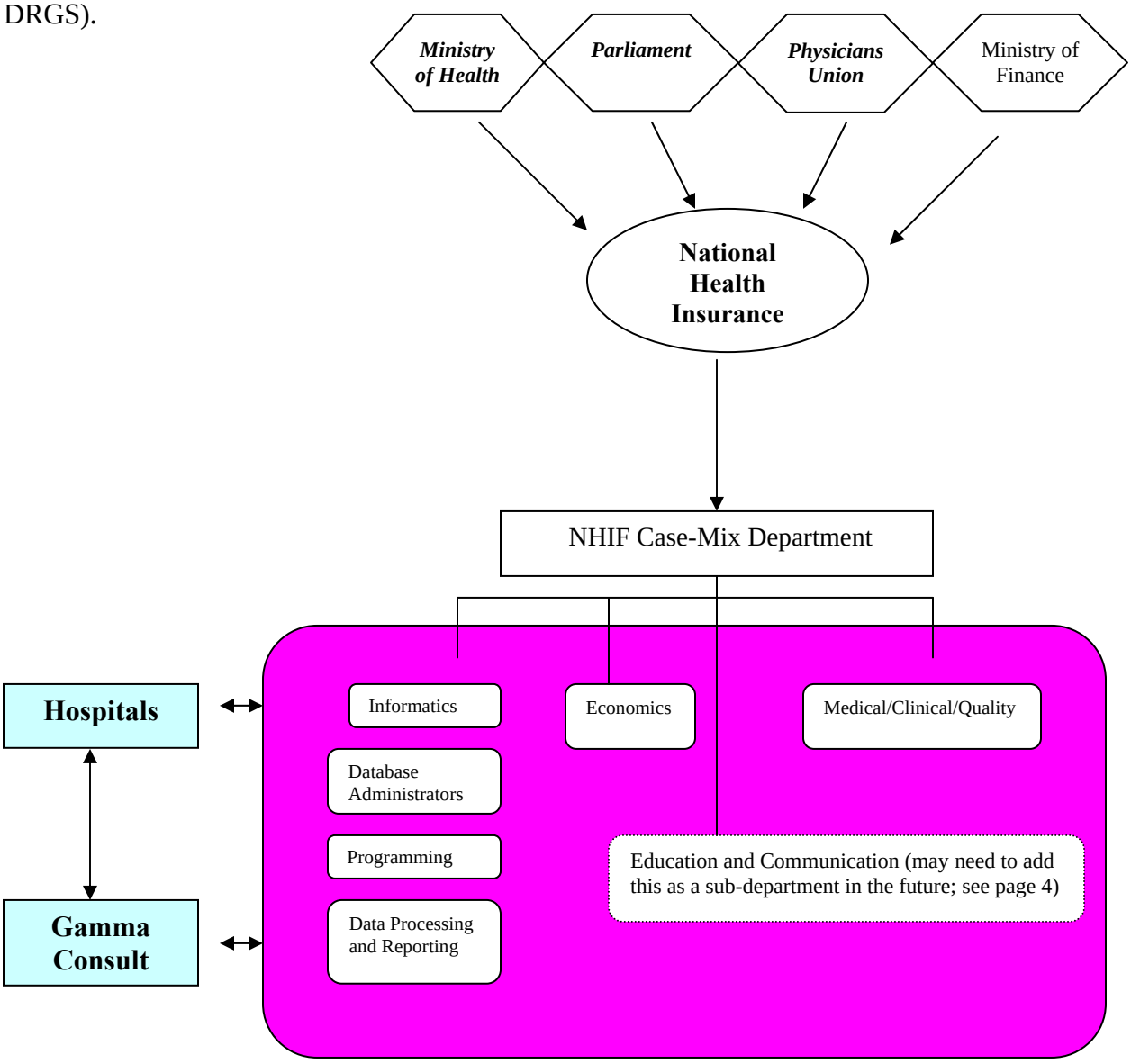
Therefore, one critical step that Bulgarian officials should agree on is to begin collecting clinical and financial patient data from all Bulgarian hospitals in an attempt to better understand what services are being provided and at what cost. It is important to note that this type of data is critical regardless whether or not Bulgaria decision-makers decide to use the DRG method of financing.

The introduction of DRG projects is not new in Bulgaria, but the time has come when decision-makers should decide if something official is going to be implemented. DRGs are considered an important tool internationally, as they fundamentally assist in allocating health care resources in the most equitable, rationale, and fair way to hospitals. In countries where DRGs have been successfully implemented, the impact of the DRGs goes beyond hospital financing reform. As resources are allocated more efficiently in the health sector, money is freed up for other services, including ambulatory care, primary care, etc. Also, the components required for DRG system implementation such as coding of cases, costing of services, data collection, quality measurement and management, information systems infrastructure, and knowledge of hospital management for hospital managers will have far reaching impact on the overall management of the hospital, the use of funds, and on the quality of care for patients.

Reforming the financing of the hospital sector is not the only work to be done, and it cannot be done alone. Plans for the future include integrating services and financing mechanisms across all care settings so that all actors in the health care system benefit. The patient is the primary concern, yet in an environment with limited sources, the government must carefully balance the funds available with the services offered by creating incentives for providers to offer care in the most appropriate setting from a quality point of view and in the most cost-effective manner. Over time, having data from all care settings and all providers will help the Bulgarian government create a more integrated and strategic plan for planning and financing all health care services.

One important step was to formally establish the case-mix department within the National Health Insurance Fund that will be responsible for carrying out a number of the functions described below. The following figure illustrates one version of how the case-mix department within the NHIF should be organized be organized. Formally establishing a case-mix department, with the appropriate sub-departments to manage the clinical data collection, grouping, analysis, quality monitoring/review, and training and communications with the hospitals and with other institutions will be critical for the successful implementation of case-mix financing.

In general, the case-mix department should be able to carry out the majority of the functions required to support clinical and cost data collection that will be used as the basis for case-mix financing system implementation. Clinical Care Protocols have already been implemented and they are both similar and different from more classic case-mix systems based on diagnosis and procedure (i.e., Diagnosis Related Groups or DRGS).



In either case, clinical data must be collected, processed, analyzed, and grouped into categories that will either be used to guide clinical practice and/or to use as the basis for payment to hospitals. If categories based on diagnosis are going to be used as a basis for payment, then those groups must have a cost associated with them. Determining the cost of different diagnosis groups, whether they are CCPs or DRGs is a difficult and time consuming task, but necessary over time. The case-mix department will therefore need staff to prepare costing analysis in addition to the data collection, analysis, and grouping. In addition, the case-mix department will be involved in modeling various policy and budgeting options for the NHIF to consider. This work requires case-mix knowledge, as well as, the political will of Bulgarian decision-makers (i.e., how fast will the system be implemented, in how many hospitals, for what services, etc.). Data quality, coding logic, clinical knowledge, and maintaining the integrity of coding and the clinical appropriateness of the groups (either CCPs or DRGs) is also critical. Therefore, a medical/clinical/quality department is essential. In addition to these functions, the case-mix department will need to work closely with the NHIF's Legal or Legislation department to review existing legislation to determine if it competes with the types of incentives created by the implementation of case-mix financing. New legislation will also be required since hospitals will have new requirements to follow. Finally, a strong communication campaign, communication with hospitals and policy-makers, as well education and training are essential to the successful implementation of a case-mix financing system implementation.

III. Institutionalize National Health Accounts

Health financing evidence can contribute to improved performance. Financing information is an essential input for strengthening policies to improve health systems functioning. It also contributes to the measurement of the outcomes of the system and the factors that explain these outcomes. For example, in many countries more funds and better-managed financial resources are an essential intermediate step in improving health systems. And achieving a fair distribution of the heavy financial burden of health care — especially reducing its negative effect on the poor — is one of the goals of health systems.

National Health Accounts answer the WHO call for an "essential information base" to analyze health system performance. NHA information is basic health system information in the same way that information on the level and composition of population mortality is basic information about health. Policy analysts are ill served trying to do public health planning without understanding the health conditions in a country. So, too, are they ill-served trying to plan system expansion or reform without a good understanding of the financial condition of the entire health system. Put simply, NHA are a standard set of tables that describe the flow of funds among the various aspects of a nation's health expenditures. What distinguishes them from other forms of expenditure review are one or more of the following:

- A rigorous classification of the types and purposes of expenditures and of the actors in the health system;
- A complete accounting of all spending for health, regardless of the origin, destination, or object of the expenditure;
- A rigorous approach to collecting, cataloging, and estimating those flows of money; and
- A structure intended for ongoing analysis as opposed to one-time study.

The attraction of NHA as a tool for policy analysis is that the approach is independent of the structure of a country's health care financing system. Health accounts work equally well in single-payer models and in multi-payer systems, in systems with public providers as well as in those with private providers or a mix of providers, in systems undergoing rapid change as well as those in a steady state, in systems facing the challenge of epidemic disease as well as those challenged by aging of the population.

There are, however, problems with data gaps that may lead policy decision makers to erroneous definition of the problems and priorities within the health sector. In these cases, health expenditure data are neither connected nor arrayed in ways that could make them more useful for a variety of policy purposes. Crucially, data collected from households do not now allow differentiation among:

1. Privately purchased goods and services ("subscription" services, pharmaceuticals, care purchased from private providers, or voluntary insurance);
2. Co-payments for services also financed by government or the NHIF; and
3. Under-the-table payments (gratuity) to providers.

It is currently not possible to follow comprehensively the full flow of funds from payers (e.g. government entities, households and employers for compulsory insurance services; NGOs, bi- and multilateral, government and municipalities for capital improvements; households for required co-payments and payments for other goods and services) through intermediaries (e.g.: MOH, NHIF, subscriptions service providers and in future, voluntary insurers) to public, "trade company" and private sector providers (e.g. of ambulatory, specialist outpatient, hospital and ancillary care). Especially with regard to out-of-pocket payments, there is significant understatement of the amount of funds flowing through the health care system as a whole as well as an incorrect understanding of the portion of health care being funded from various sources.

How NHA Presents Financing Flows and Links to Health Policy Decisions

Some Key Policy Issues

How are resources mobilized?
- Who pays?
- Who finances?
- Under what scheme?

How are resources managed?
- What is the financing structure?
- What pooling arrangements?
- What payment and purchasing arrangements?

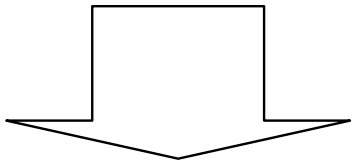
Who provides what services?
- Under what financing arrangements?
- With what inputs?

Who benefits?
- Who receives what?

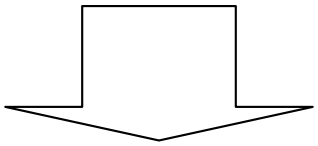
How are resources distributed?

Flow of Resources in Health Financing

Financing Sources



Financing Agents



Inputs

Providers **Functions**

Important Distributions e.g.

Gender Income Geographic

Some Key Health Policy Instruments

Resource mobilization/financing strategies

Pooling arrangements
Cost recovery
Regulation of payers

Financial incentives
Subsidies
Resource allocation
Regulation of providers

Targeting
Redistributive policies
Outcome evaluation

Bulgaria has substantial epidemiological and health financing information collected/provided by a variety of govt. entities, for example:

- MOF -- general revenue expenditures, inclusive of MOE, defense establishment, and grants to municipalities; bilateral/multilateral grants, loans and donations;
- MOH -- by expenditure category for own/owned facilities/providers; public health statistics of National Center for Health Informatics;
- NHIF -- compulsory insurance revenues/expenditures; expenditures by primary, outpatient specialist, hospital, dispensing pharmacy, and related categories;
- National Statistical Institute -- based on stratified national probability sample of 6,000 households, out-of-pocket household expenditures by: pharmaceutical, appliance and equipment; medical, dental, allied health (e.g., clinical lab/x-ray); outpatient services; in-patient hospital; ambulance transport.

Institutionalization of NHA means that the activities of collecting, analyzing and reporting total health care spending is systemized to the point where it is undertaken routinely by a designated entity/department which follows a predetermined standards and protocols. Institutionalizing NHA should be looked at as a government responsibility that ought to be enveloped into the government routine processes with the objective of forming a core dataset for health policy development, monitoring and evaluation. This implies that for NHA to become a consistent activity it should meet two principles:

1. Become a core activity within the entity responsible for producing it; and
2. Be closely linked to policy requirements in order to be useful.

The main institutionalization activities are focused around the changes in how data is being compiled and reported nationally. In the short-term, defining the component tasks and building the needed technical capacity for executing NHA will be the focus. An environment that enables the initiation, growth, and sustainability of the NHA activities must incorporate supportive policies, standardized methods for data reporting, effective leadership and adequate resource allocation which emphasizes the importance of NHA as a policy planning tool. To that extent, the essential elements fundamental to the successful institutionalization of national health accounts are housing NHA, developing standards for Data Collection, and implementing requirements for data reporting.

The task of producing national health accounts in Bulgaria was be assigned to a small team of experts working at the Ministry of Health. The NHA team or analysts should be drawn from those who are familiar with national economic statistics and accounting practices, those who are knowledgeable about the health system and health policies, and those who are experienced with the data and information generated by different entities in the health system. The Bulgaria Health Reform Project provided training for the NHA team on data collection and analysis. The training introduced the standard NHA tables and classification entities for financing, functional and provider entities as well as

developing a data collection plan. The NHA team at the Ministry received a translated Bulgarian copy of the WHO's NHA Producer's Guide. The team from the Project along with the experts from the Parliamentary Health Commission conducted a comprehensive assessment of existing laws and regulations that control the reporting of health expenditure data in public and private sector. The Team made specific recommendations concerning compiling and reporting certain private provider health expenditure data through the professional associations such the physician and pharmaceutical unions.

IV. Promote Private Health Insurance

It is hard to find a legitimate business that it is not usually subject to some kind of regulation, either public or State. Decisions to regulate certain activities and determining what to regulate are usually motivated by economic considerations. Who should regulate and how to regulate involve legal and institutional concerns. The regulatory domain is where the marriage of law and economics is quite evident, including the inherent compatibilities and contradictions, trade-offs, compromises and satisfactions inherent in this analogy. Regulating health care financing is a topic of particular complexity in which political, social, economic, and legal/institutional matters deal with a subject matter very close to the essence of life and in which many vested and conflicting interests are involved.

The increasing presence of the private sector in health care financing and delivery of health care presents new regulatory challenges[2]. In many instances, there is a need to define the role of the State in regulating private health care businesses. Emerging private financial sectors developing mostly unregulated, private health insurance present policy-makers with dilemmas of definition. Should private health insurance be defined as additional or supplemental to the basic package under compulsory health insurance? What is the exact meaning of "additional" in terms of what services to finance privately? Should private health insurance be comprehensive, that is, encompassing services included in the basic package? In the case of comprehensive private health insurance, should opting out of compulsory health insurance be allowed? Should the principle of solidarity prevail and opting out be forbidden? Should people purchasing comprehensive private health insurance be allowed to pay some social health contributions up to a certain cap? All of these issues, fundamental for the configuration of a public/private mix in health care financing, have a direct impact in defining and regulating "what to finance" with private health care financing.

The proposed draft amendment to the Bulgarian Health Insurance Act defines this type of health insurance as a "reimbursement" type of health insurance, where health insurance

[2] The presence of a mostly unregulated private sector in providing goods and services to the middle and upper income brackets is becoming more evident through pre-payment schemes. Formal health insurance is expensive due to capital and other requirements under General Insurance Laws and is complex and expensive to manage; accordingly, its development has been limited. The private sector is also present in supplying non-clinical services to the health care businesses.

companies provide repayment for defined health care expenditures incurred by the insured.

In regulating pre-payment/subscription plans, the first issue to resolve is to determine if these activities constitute the business of insurance. If they are a type of insurance, mainly because of the financial risk involved in honoring the services included in the subscription plans, then the subscription plans need to be incorporated into health insurance companies and seek a health insurance license. These requirements would be difficult to meet by most subscription schemes, and unregulated practices may continue.

Health care financing in Bulgaria has at least four identified sources:

- ***General taxation***, in the form of: (a) social contributions subsidies for vulnerable groups and "non-active" populations (e.g., pensioners, military personnel, students) paid by the State budget; and (b) State budget funds transferred to the Ministry of Health to pay for public health care establishments;
- ***Social health insurance contributions***, paid by employers and employees, and by the self-employed;
- ***Voluntary health insurance premiums*** to private health insurance companies and pre-payment/subscription "quotas" to private health care pre-payment/subscription arrangement; and
- ***Out-of-pocket payments***, both legal (e.g., co-payments, co-insurance) and illegal ("under the counter").

The Bulgarian Health Insurance Act (HIA), in its current form, deals with only two of the above four sources of health care financing: social health insurance and voluntary (private) health insurance.

- Pre-payment/subscription plans or "arrangements" need to be regulated, and the law (HIA) should require licensing and supervision. Any activity of this kind that is conducted with out license should be declared illegal.
- Illegal---"under the counter"---payments, though deeply rooted in the health care delivery system, need to be prohibited via legislation, which *is consistently enforced* (e.g., via imposing financial penalties on providers, suspending licenses to practice medicine or to operate an insurance company). "Under the counter" payments are antithetic to the principle of transparency and should be considered illegal *regardless* of what type (e.g., social, voluntary, subscription plans) of health insurance is being considered.

The National Health Insurance Fund (NHIF) manages social health insurance through a central office, the NHIF proper and various Regional Health Insurance Funds (RHIFs), as decentralized branches. The NHIF needs to be thought of primarily as a *financial*

institution. The NHIF is not a health care establishment, nor a medical institution, nor a trade union for physicians. Accordingly, it should be directed and managed *primarily* by financial administrators with proven competence; physicians and other clinical professionals are of vital importance and need to play key roles within the NHIF, but these roles should generally be supportive and advisory, rather than executive in nature.

The managerial structure of the NHIF should be *simple* and *efficient.* Having just one Board of Directors meets the standards of simplicity and efficiency. This is not the case with layers of bureaucracy, as it is currently structured in the HIA. Populist collective governing structures (e.g., Assembly of Representatives) should be avoided, as they are inefficient and costly. The aim here is to---within the context of equity and integrity---efficiently manage a business, not to have a populist forum. Any changes in the design of the NHIF should address the fundamental structural issues it faces: namely, definition of the nature of the NHIF, its financial management; its transparency; and its accountability. If no structural changes are introduced, the NHIF will remain ineffective and populist, regardless of what incremental changes are proposed and/or implemented.

Social health insurance contributions should be defined in the HIA (X% by employers and X % by employees), and should be left undetermined and subject to potential annual changes in the Budget Law. State subsidies for the payment of contributions of the vulnerable and non-active population should be based on the cost of a basic package and on individual ability to pay, as determined by the NHIF and the Ministry of Finance (MOF). The HIA should not list exemptions to the payment of contributions. The more exemptions that are established in the law, the greater the financial burden on the State budget and less the likelihood for the financial sustainability of the NHIF.

Voluntary health insurance is of two types: “reimbursement” and “subscription”. The “reimbursement” type is where health insurance companies provide repayment for defined health care expenditures incurred by the insured. The “subscription arrangement” type is where health insurance companies manage pre-paid premiums for a certain type and volume of heath care goods and services provided by one or more contracted health care providers. The State Insurance Agency of the Ministry of Finance should be the sole regulator of the voluntary private health insurance business regardless of whether it is reimbursement, subscription, or some other type.

The HIA should require that only licensed insurance companies and health subscription plan companies be allowed to offer private health insurance. The HIA should make it illegal for any natural or legal person to offer voluntary health insurance either reimbursement or pre-payment/subscription arrangements without a license. Licensed health insurance companies can offer both “reimbursement” and “subscription” types of voluntary health insurance. Licensed subscription plan companies can only offer the subscription type of voluntary health insurance. Pre-payment/subscription arrangements of *all* kinds should be regulated and licensed in accordance with a procedure to be determined.

CONCLUSIONS

There are immense challenges to describing and summarizing the impact of a project as BHP. For that reason, this report has not attempted to be comprehensive, but to highlight key accomplishments and contributions of this project to the health of the people in Bulgaria and to the field of health sector reform at a more macro level. The report has summarized key results achieved, based on the needs of our local counterparts and based on that of USAID mission in Bulgaria.

As can be gleaned from these pages, BHP has accomplished many objectives. Nevertheless, it has not been able to fruition all the work that it started. Health sector reform is a long-term process and many of the reform initiatives started by BHP will need more time to see their full impact. Health reform is also inherently political process, and, in some cases, political instability has led to stagnation or even reversals of reform strategies. Yet BHP's contributions in these circumstances have had positive impact, as its interventions have build capacity, provided evidence that can serve future reform endeavors, and raised awareness of, and interest in, reforms.